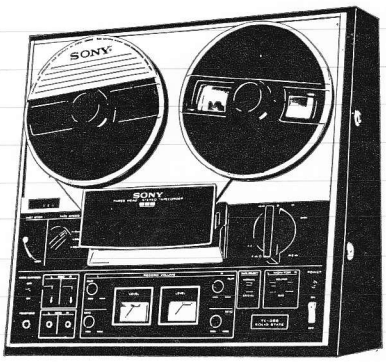
SONY®

THREE HEAD STEREO TAPECORDER

TC-366

Owner's instruction manual



The SONY Model TC-366 is a solid state 4-track stereo tape deck designed for serious home recordists. The highly developed facilities of the TC-366 will offer a new world of sound when used in conjunction with high fidelity components.

Special features are : scrape filter which eliminates tape modulation distortion ; tape tension regulator to reduce flutter and wow ; noise suppressor to cut off high frequency noise ; automatic shut-off mechanism ; tape selector for low-noise high-output tapes ; facility for mic and line mixing ; slant cabinet designed for convenience of operating in either horizontal or vertical use.

Before operating, read this manual carefully to become familiar with all features and operating procedures so as to realize the full capabilities of TC-366. Keep this manual handy for future reference.

SONY
SONY
SONY
THREE HEAD STEREO TAPECORDER
TAPE SPEED
RECORD VOLUME
LEVEL
LEVEL

PRECAUTIONS

Always keep the heads clean. Dust and deposits of foreign matter on the heads will affect sound quality of recording and playback. For maintenance, refer to page 8.

1. The Function Selector of the TC-366 cannot be locked without threading tape, because the Automatic Shut-off Mechanism is activated in that condition.
2. The Microphone Inputs and the Auxiliary Inputs of this recorder can be used simultaneously for mixing To record only through the Microphone Inputs, disconnect any input source from the Auxiliary Inputs ; and vice versa.
3. Turn the Function Selector to STOP position and switch the power off when the recorder is not being used.
4. Keep the recorder in a well ventilated area and away from any excessive heat.
5. Do not block the ventilation grille at the back of the recorder as this may stop ventilation and cause excessive heat inside the recorder.

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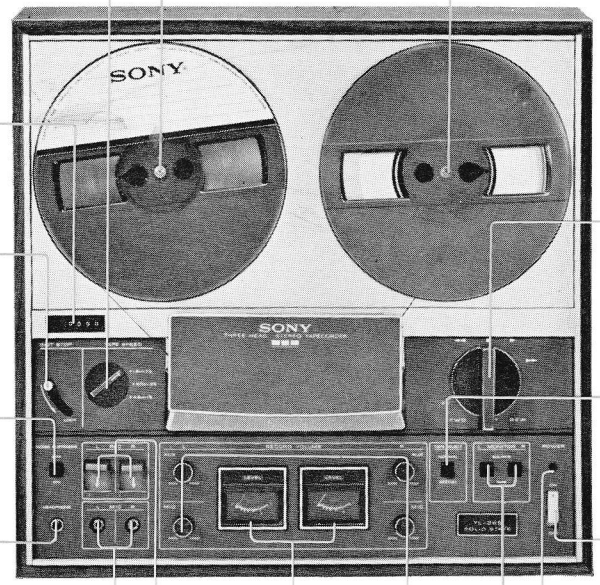
LOCATION OF CONTROLS AND CONNECTORS



[TAPE SPEED]
Tape Speed Selector

Tape Counter

[INST STOP]
Instant Stop Lever

[NOISE SUPPRESS]
Noise Suppressor

[HEADPHONE]
Headphone Jack

[MIC]
Microphone Inputs

[REC]
Record Levers

[LEVEL]
Level Meters

Reel Spindles

[◀◀ ■ ▶ ▶▶]
Function Selector

[TAPE SELECT]
Tape Selector

[POWER]
Power Switch

Pilot Lamp

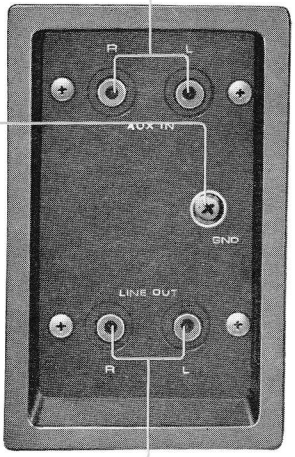
[MONITOR]
Monitor Switches

[RECORD VOLUME]
Record Volume Control

Reel Caps

[AUX IN]
Auxiliary Inputs

[GND]
Ground Terminal



[LINE OUT]
Line Outputs

CONNECTIONS

The TC-366 can be connected to any high-quality audio components. The connections described in this booklet are for connections between the TC-366 and other SONY audio components. When using other manufacture's components, the connections will be the same as for the SONY products in almost all cases. To assure correct matching of the input and output terminals of your sound system, refer to the specifications of the TC-366 (on page 12) and the instruction manual provided with the components to be connected.

Microphone Inputs [MIC]

These jacks will accept any high quality low impedance microphone. SONY Microphone F-98 and ECM-21 are available as optional accessories. A SONY radio or TV equipped with recording jacks, SONY Telephone Pick-up TP-5S or SONY Stereo Microphone Mixer MX-6S can also be connected to these jacks.

Auxiliary Inputs [AUX IN]

Connect any external sound sources which have an output level of at least 0.06 volt. The input impedance is higher than 100k ohms and the frequency response is flat.

Line Outputs [LINE OUT]

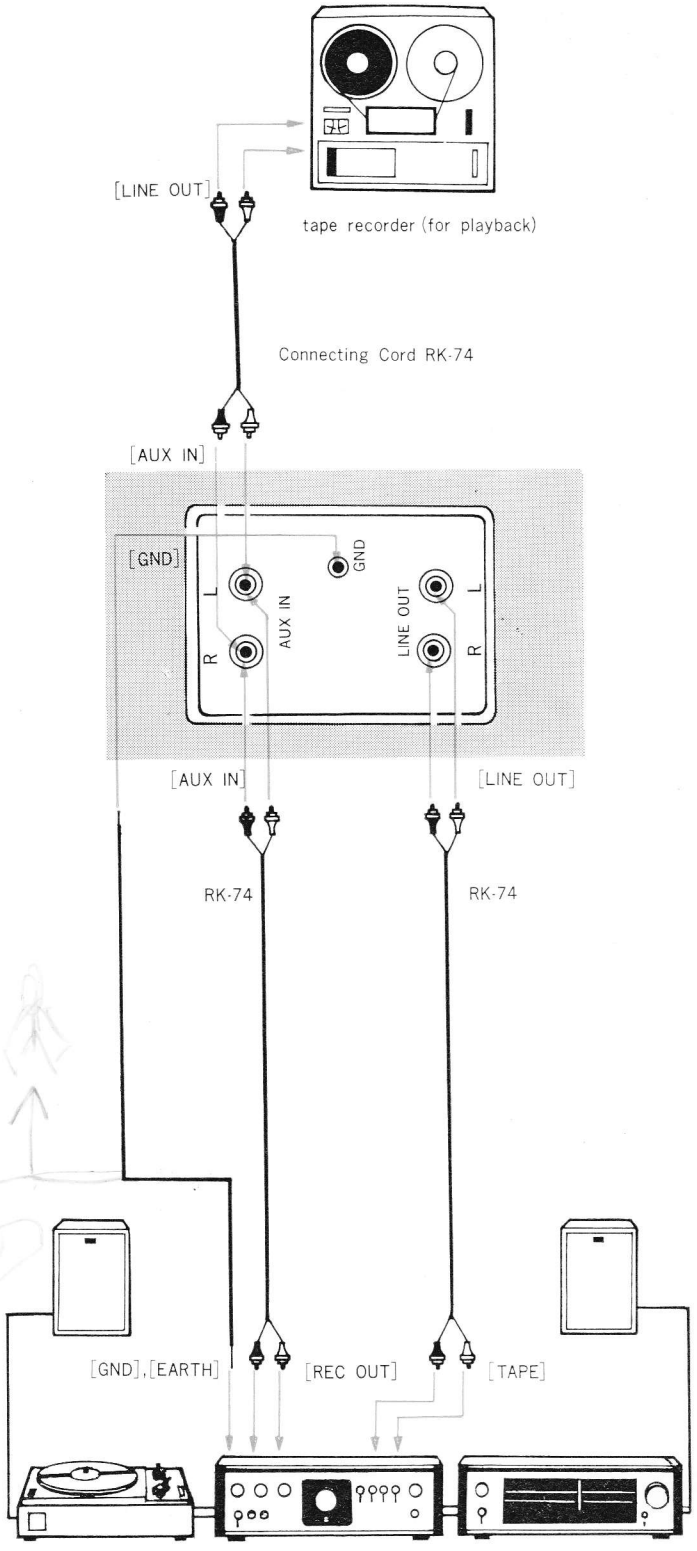
Having a 100k ohm load impedance and output level of 0.775 volt, these jacks can be connected to the tape inputs of an integrated stereo amplifier or stereo receiver. Another tape recorder can be connected to these jacks for duplication of tapes.

Headphone Jack [HEADPHONE]

This output accepts a stereo headphone of 8 ohms equipped with a standard binaural headphone plug. Source monitoring and tape monitoring can be done by selecting the setting of the Monitor Switches. SONY Stereo Headphone DR-6A is available as an optional accessory.

Ground Terminal [GND]

To reduce residual hum noise, connect this terminal to the ground terminal of the connected amplifier or receiver.



OPERATION OF CONTROLS

Tape Transport Section

Tape Speed Selector [TAPE SPEED]

7½ ips and 3¾ ips are ideal for recording music when best sound quality is desired. 1⅞ ips is ideal for speech especially when longer recording time is desired.
In playback mode, set the tape speed corresponding to the speed of the recorded tape.

- Change the tape speed only when the Function Selector is in STOP position.

Tape Counter

Indicates the approximate amount of tape used in recording or playback. To reset the counter to [0000], press the Reset Button at the left side of the counter.

Instant Stop Lever [INST STOP]

Instantly stops tape motion while the recorder is in either record or playback mode.
Pull the lever toward you until it locks in position. To release, push it back slightly. The tape will immediately pick up normal forward speed.

- When the Function Selector is turned to STOP position, the Instant Stop Lever will also be released.

Function Selector

Controls all tape motion.
FWD position .....to start the tape in either record or playback mode.
STOP position.....to stop the tape.
REW position .....to rewind the tape.
FF position .....for fast forward tape motion.

Record Amplifier Section

Noise Suppressor [NOISE SUPPRESS]

When this switch is set to the ON position during playback, the distracting high frequency noise such as record scratch or tape hiss is removed from the program material. This suppressor allows full pass-band for the major part of the audio frequency range as it does not affect response frequencies below 9 kHz.

Record Levers [REC]

For recording, pull the levers toward you, and while keeping the levers in a locked position, turn the Function Selector to FWD position. The lamps in the Level Meters will light, indicating that the recorder is in record mode.

- When a monophonic program is desired, pull either L or R lever toward you and turn the Function Selector to FWD position.

Record Volume Controls [REC VOL]

For record volume level control, set the Monitor Switches to SOURCE position and pull the Record Levers into locked position. Then adjust the Record Volume Controls so that the meters do not swing into the red area except on volume peaks. The upper two knobs marked AUX are for adjusting the input level through the Auxiliary Inputs; and the other two marked MIC are for adjusting the input level through the Microphone Inputs.

Level Meters [LEVEL]

While recording (when setting the Monitor Switches to SOURCE position), the swing of the needles indicates the level of input signals. During playback (when setting the Monitor Switches to TAPE position), the meter indicates the output level at Line Outputs.

Monitor Switches [MONITOR]

For playback of tapes, set the switches to TAPE position. While recording, the TAPE position is for tape monitoring and SOURCE position is for source monitoring. The switch L and the switch R may be activated separately.

Tape Selector [TAPE SELECT]

When you use SLH (SONY Low-noise High-output) tape, set this selector to SPECIAL position. For standard tapes, set the selector to NORMAL position.

Under the Head Cover

Scrape Filter

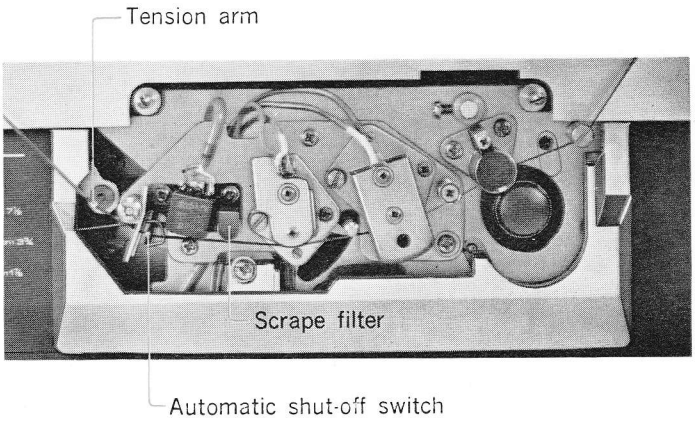
Stops vibration of the tape, to eliminate tape modulation distortion and reduce flutter.

Tape Tension Regulator

Controlled by a guide pin located under the head cover. The guide pin quickly responds to any subtle change of tape tension so that a smooth, even flow of tape past the head assembley is assured.

Automatic Shut-off Mechanism

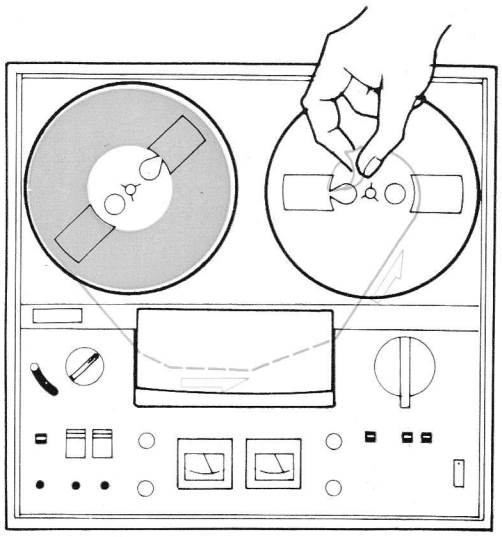
Activated by a wire lever under the head cover. When the tape is threaded, the tape contacts the lever and holds it in operating position. If the tape runs out or breaks, the lever will fall forward and activates the shut-off mechanism which stops the tape transport and turns the Function Selector to STOP position.



TAPE THREADING

Place an empty reel on the right reel spindle (Take-up Reel Spindle) and a full reel on the left reel spindle (Feed Reel Spindle).
Thread the tape from left to right by passing it under the head cover and wrap the tape around the hub of the right reel or insert the end of the tape into the reel slot. Turn the reels a few times to take up the slack so that the Automatic Shut-off Mechanism is ready to activate.

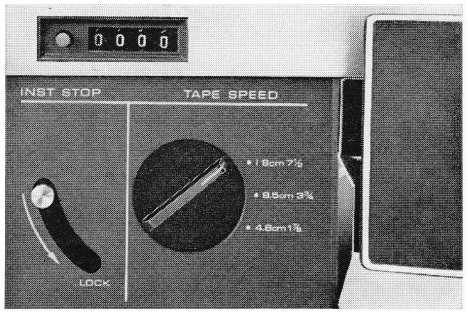
- It is recommended that reels of the same size are used for both supply and take-up.
- When the recorder is used vertically, use the supplied reel caps to secure the reels in place.



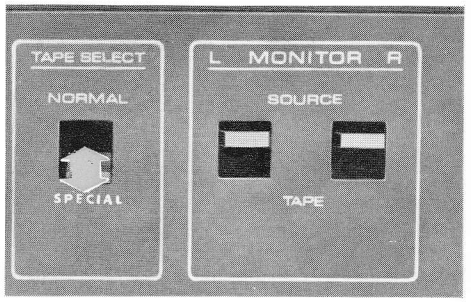
RECORDING PROCEDURE

Stereo Recording

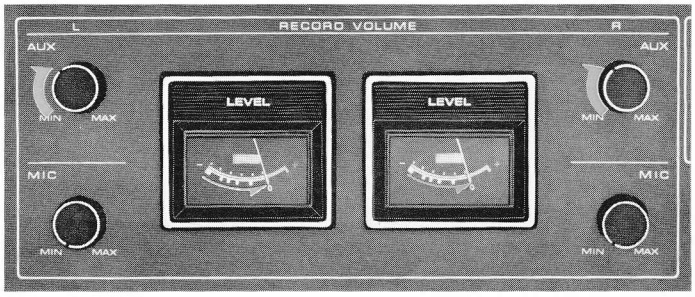
1. Connect the desired source program to the input connectors. Refer to 'Connections' on page 2.
2. Turn on the TC-366 and the source equipment.
3. Set a tape and an empty reel with side 1 up. Thread the tape and set the Tape Counter to [0000] by pressing the Reset Button.
4. Select tape speed.



5. Set the Tape Selector to either SPECIAL or NORMAL position. Set it to SPECIAL position when SONY Low-noise High-output tape is used, and to NORMAL position when a standard tape is used.



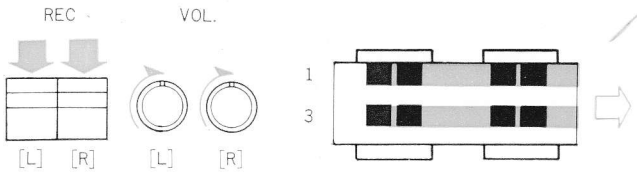
6. Adjust the recording level. Set the Monitor Switches to SOURCE position and turn the Record Volume Controls. The input level through the Auxiliary Inputs can be adjusted with the upper two control knobs marked AUX; and the input level through the Microphone Inputs can be adjusted by the other two control knobs marked MIC.
   In either case, adjust the level so that the pointers of the Level Meters do not go into the red area except on volume peaks.



Function Selector to FWD position. Recording of side 1 (track 1 and 3) starts. The lamps in the Level Meters will light, indicating that the recorder is in record mode.

8. At the end of the tape, set the Function Selector to STOP position. To record on side 2 (track 4 and 2), do not rewind the tape. Reverse reel positions and repeat step 7.

When side 2 recording is finished, do not rewind the tape but reverse reel positions. Then the tape will be ready for playback of tracks 1 and 3.



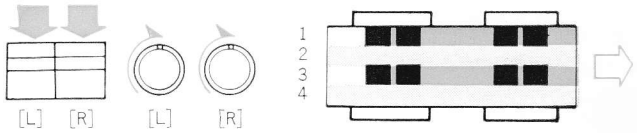
Monitor while recording

The professional feature of separate record and playback heads permits monitoring of tape during recording by setting the Monitor Switches to TAPE position.
With the use of a stereo headphone, instantaneous comparison of source and tape is possible by setting the Monitor Switches alternately to SOURCE and TAPE positions. The source signal is monitored when the switches are in SOURCE position. The recorded signal (playback head output) is monitored when the switches are in TAPE position.

- When the amplifier being used is equipped with a tape monitor selector, source/tape comparison can be done with the amplifier. In such case, the Monitor Switches on the recorder should be in TAPE position.

Invert and reverse the tape reels.

ECHO EFFECT THROUGH HEAD PHONES



Monophonic Recording

The sequence of monophonic recording should be track 1, track 4, track 3 and track 2. Monophonic recording employs either channel left or right at one time. Therefore, when changing from left channel to right channel, reconnect the source signal to the right channel input, adjust the right Record Volume Control, and while holding the right Record Lever in locked position, set the Function Selector to the FWD position. For orientation of recording track and channel, refer to the chart below. At the end of each track, do not rewind the tape. Reverse reel positions.

Recording track	Upper side of the tape	Input connection	Lock the Record Lever
Track 1	Side 1	to L input	L
Track 4	Side 2		
Track 3	Side 1	to R input	R
Track 2	Side 2		

- With the use of the independent Record Levers for each channel, the TC-366 provides the facility to playback one track (ex. track-1) while recording the other track (ex. track-3). This feature will be ideal for language students who wish to listen to a prerecorded lesson on one track while recording the answers or repetition on the other track. Both tracks can later be played back separately or simultaneously for comparison.

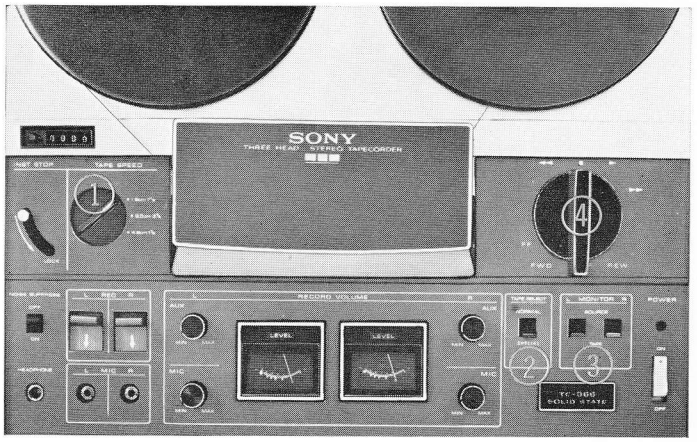
PLAYBACK PROCEDURE

Stereo Playback

1. Set up the stereo playback system and turn the operating power of each component on. For connection information, refer to page 2.
2. Thread a 4-track stereo recorded tape with side 1 up.
3. Set the Tape Speed Selector ① to the required speed of the recorded tape.
4. Set the Tape Selector ② to SPECIAL or NORMAL position according to the sort of tape used, and the Monitor Switches ③ to TAPE position.
5. Set the Function Selector ④ to FWD position. Playback of track 1 and 3 will start.
6. At the end of the tape, set the Function Selectar to STOP position. To playback side 2 (track 4 and 2), do not rewind the tape, but reverse the reel positions. Then set the Function Selector to FWD position.

Playback sound volume and tone quality are controlled with the connected amplifier.

- If high frequency noise occurs, set the Noise Suppressor to ON position.



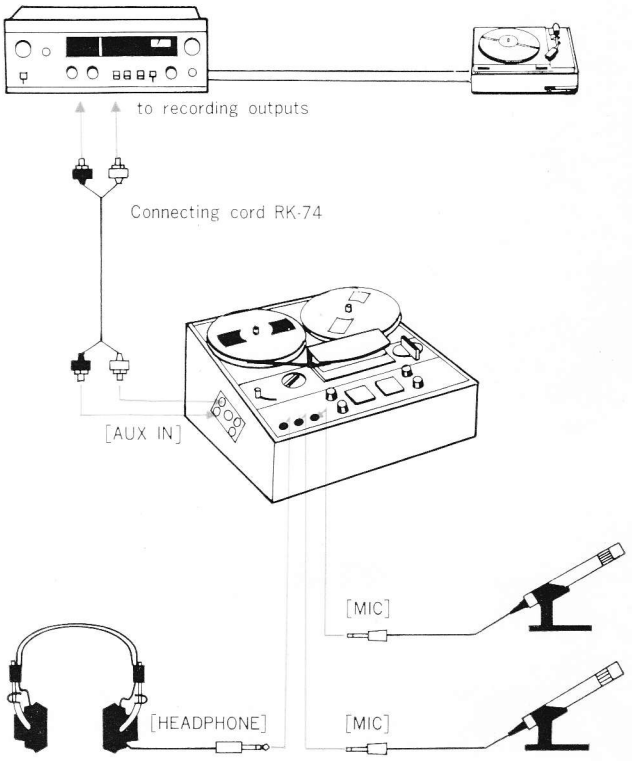
Monophonic Playback

Monophonic playback procedures are the same as for stereo playback, except for the controls at the amplifier connected to this recorder. Playback sequence of each track should conform to the sequence of recording ; i.e. track 1, 4, 3, 2. For tracks 1 and 4 playbark, set the mode selector and/or other controls of the amplifier to reproduce the left channel only. For tracks 3 and 2 playback, set the amplifier to reproduce the right channel only.

MIXING

Mixing can be made by using the Microphone Inputs and the Auxiliary Inputs simultaneously. For recording procedure, refer to 'Recording Procedure' on page 4.

- The mixed sound can be monitored through a stereo headphone.

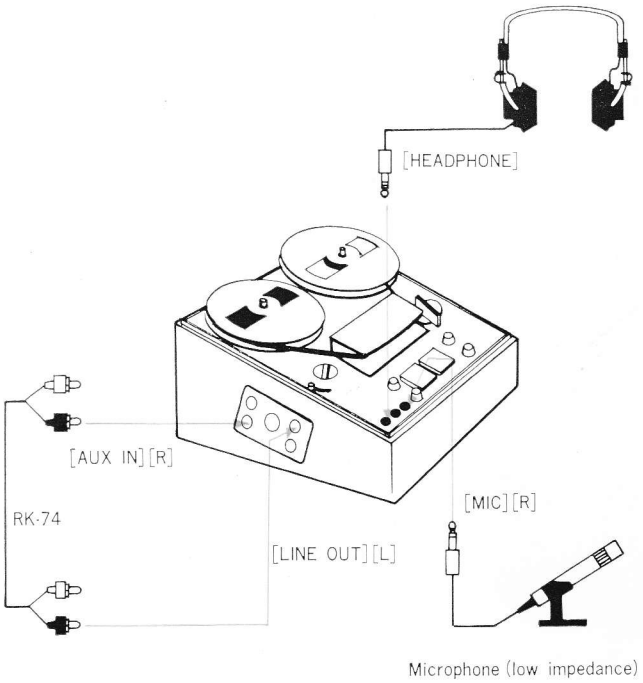


SOUND-ON-SOUND RECORDING

This means making a mixed recordiog on one tape track, composed of a signal previously recorded on another track and a new external signal through one of the Microphone Inputs. This facility of the TC-366 enables one person to record a duet, a trio or other special effects.

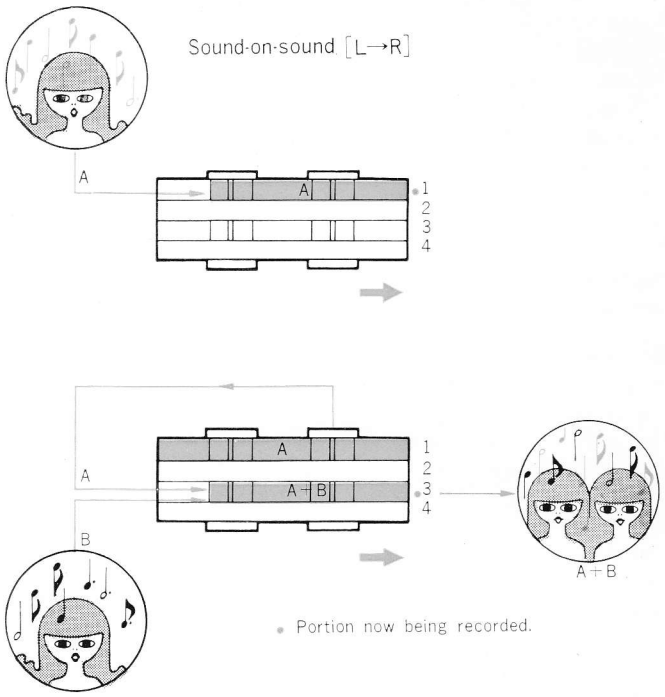
Sound-on-sound recording on the right channel [L→R]

1. Record basic source material (A) on track 1 of the left channel according to 'Monophonic Recording' on page 5, and rewind the tape to the beginning.
2. Plug the supplied connecting cord RK-74 into the Line Output L and the Auxiliary Input R of the TC-366.
   - Be sure to use the plugs of the same color at both ends of the connecting cord.
3. Plug an 8 ohm stereo headphone into the Headphone Jack, and a low impedance microphone into Microphone Input R.
4. Set the Monitor Switch R to SOURCE position. Adjust the recording level after setting the left Record Volume Controls to MIN position.
   - Playback the tape and adjust level of the signal through the Auxiliary Input R by using the Record Volume Control AUX R and the right Level Meter. Rewind the tape.
   - Lock the Record Lever R and adjust level of the signal through Microphone Input R by using the Record Volume Control MIC R and the right Level Meter.
5. While keeping the Record Lever R in locked position, set the Function Selector to FWD position and start recording (B) with the microphone.
   Through the left headphone, the playback of the basic recording (A) on the left channel is heard; and through the right headphone, the composite recording (A+B) is heard. The composite signal (A+B) will be recorded on track 3 of the right channel.
6. When the recording is finished, rewind tape to the beginning and playback track 3.
   - Be sure to re-set the Monitor Switch R to the TAPE position for playback track 3. To listen through the headphone, set the Monitor Switch R to TAPE position and the Switch L to SOURCE position.



Sound-on-sound recording on the left channel [R→L]

The mixed sound (A+B) can be recorded again onto track 1 of the left channel with another new sound (C). Reconnect the connecting cord RK-74 to the Line Output R and the Auxiliary Input L. Repeat the sound-on-sound recording procedure by using the controls of the left channel.



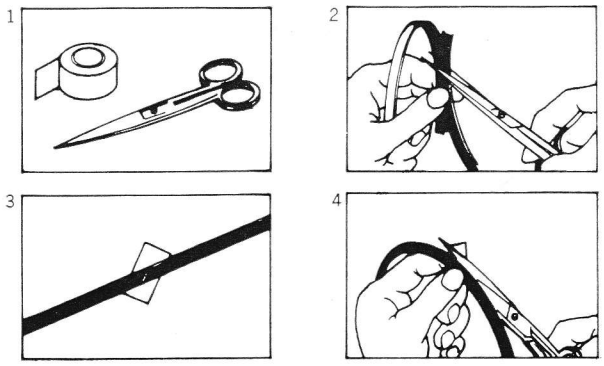
ERASING TAPE

The erase head operates in record mode, therefore every time a recording is made, any previous recording on the tape is automatically erased. A tape can also be erased without adding a new recording as follows.

1. Thread the tape to erase.
2. Disconnect any input source from the recorder, and turn all Record Volume Controls fully counterclockwise.
3. Set the recorder in record mode. Now the tape is being erased. Tape speed of 7½ ips is recommended.
   - For fast erasure, use a bulk eraser.

SPLICING TAPE

1. Use splicing tape and a pair of scissors.
   - Do not use ordinary cellophane tape as it tends to deteriorate recording tapes.
   - Also avoid using magnetized scissors or razor blades. Magnetized instruments will cause a "click" or "pop" at the splice during playback.
2. Neatly overlap the tapes to be spliced and cut the position diagonally.
3. Place a piece of splicing tape on a flat surface. Then place the two diagonal tape ends together on the splicing tape, shiny side down.
   - Be careful thet ends meet, but do not overlap.
4. Trim off the excess splicing tape.



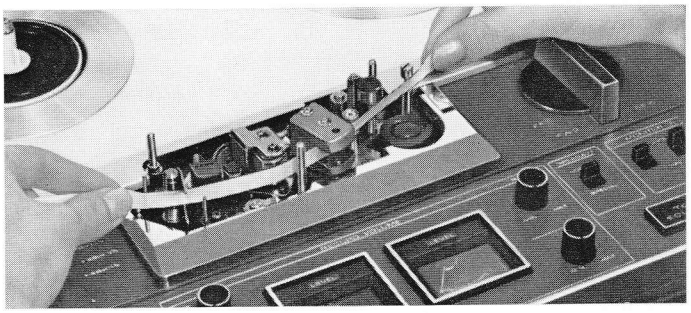
MAINTENANCE

Cleaning Heads and Tape Path

Dirty heads and tape path will cause :

- Loss of high frequency response which results in poor sound quality
- Loss of sound volume in recording and playback
- Drop-out
- Unsatisfactory results in tape erasing
- Increase of flutter and wow.

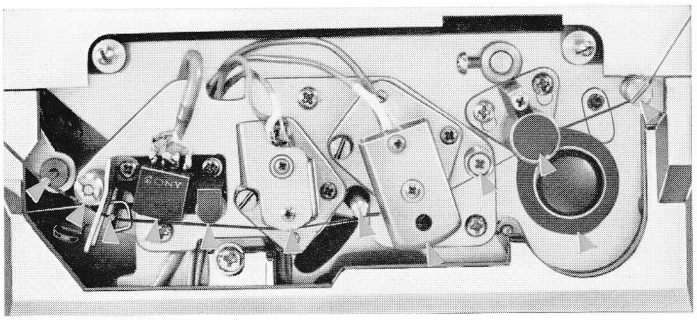
Therefore the mirror-like finish on the face of all heads and tape path must be preserved to get optimum performance. Generally cleaning heads after every 8 hours will be sufficient. But it is recommended to clean carefully the heads and tape path before starting a valuable recording.



Remove the head cover by pulling it up. Take the supplied Head Cleaning Ribbon or a soft cloth and carefully wipe the heads and other surfaces upon which the tape travels. when the deposits are hard to remove, moisten the ribbon or the cloth with a head cleaning solution or denatured alcohol and repeat cleaning.

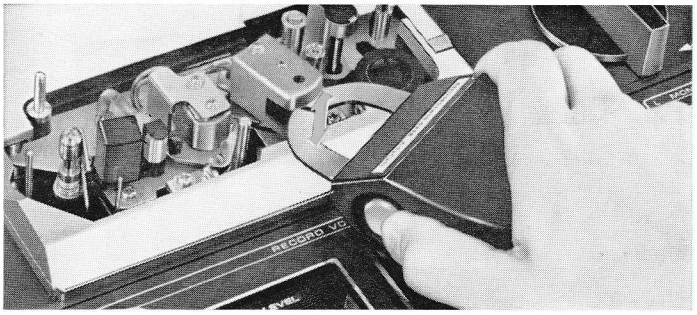
For easier access to clean the pinch roller, push backward the wire lever of automatic shut-off mechanism and fix it there with a string or so, and then set the Function Selector to FWD position ; and for the capstan, set the selector to FF position.

- Do not allow metallic materials near the heads.
- Discard the ribbon or cloth after use to prevent contamination of the cleaning solution or alcohol remaining in the container.



Demagnetizing Heads

This recorder is equipped with the non-magnetizing record head. However, through continuous use residual magnetism will gradually build up on the playback head and cause annoying back-ground noise. Therefore, periodic use of the SONY Head Demagnetizer HE-2 (optional accessory) or equivalent is recommended.



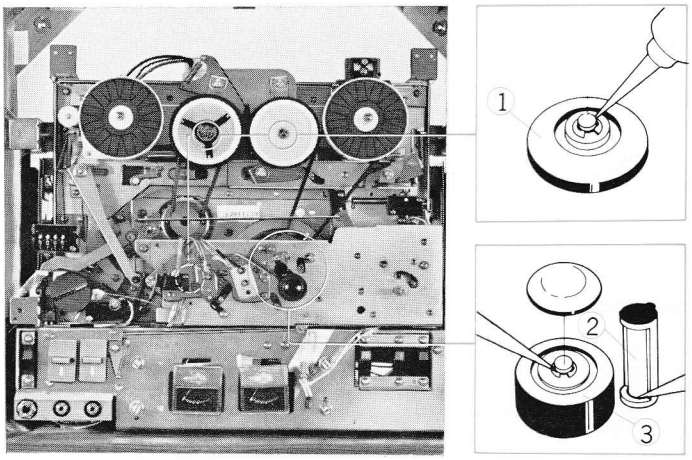
Cleaning Cabinet

Clean the cabinet with a soft cloth moistened with soapsuds. Do not use solvents such as benzine or thinner as they may cause damage of the cabinet.

Lubrication

To maintain the optimum performance of the recorder, lubrication is required every 6 months.
Consult your nearest SONY/Superscope service station for lubricating the following parts of your recorder.
Use light machine oil and lubricate the capstan, pinch roller shaft and idler shafts. Avoid excessive lubrication. It will cause slippage of the mechanism and contamination of your tape.
Make sure all excess oil is wiped off completely. Remove the top panel and take out the caps of the pinch roller and the idler shafts. Lubricate the capstan, the idler shafts and the pinch roller shaft with 1 drop each of light machine oil.

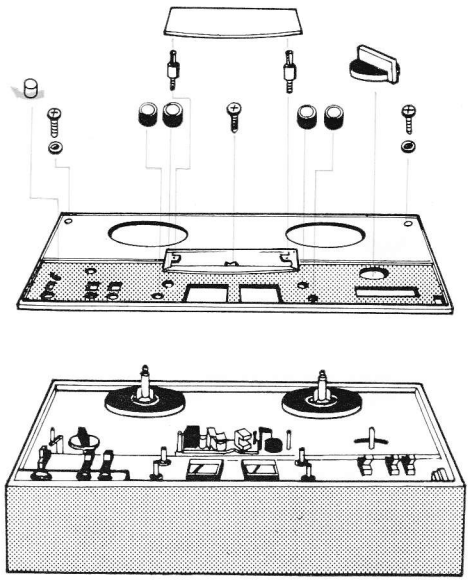
· Before removing the top panel, disconnect the AC plug.



① idler shaft ② capstan ③ pinch roller

How to remove the top panel

Pull out the Head Cover, Function Selector and four Record Volume Controls. To remove the Instant Stop Lever, turn the lever clockwise. Remove the two screws of the top panel and three screws under the Head Cover.



Vertical Use and Horizontal Use

1. Remove the bottom panel of the cabinet by unscrewing four rubber bases.
2. Remove the wooden case by loosening the four large screws on both sides of the case. (Fig. 1)
3. Shift the direction of the wooden case.
   For vertical use, make the wide, rubber-base side come to the amplifier section of the deck. (Fig. 3)
   For horizontal use, make that side come to the reel-shaft section of the deck. (Fig. 4)
4. After tightening the four screws on both sides, place the deck with top panel up and check whether or not the deck is properly fixed.
   If readjustment is neccessary, turn the deck upside-down and loosen the four screws located at the encircled parts on Fig. 2. The deck can be moved slightly.
5. Replace the bottom panel and the four rubber bases.
   - Attach the supplied Reel Caps on the reel spindles when using the set vertically.

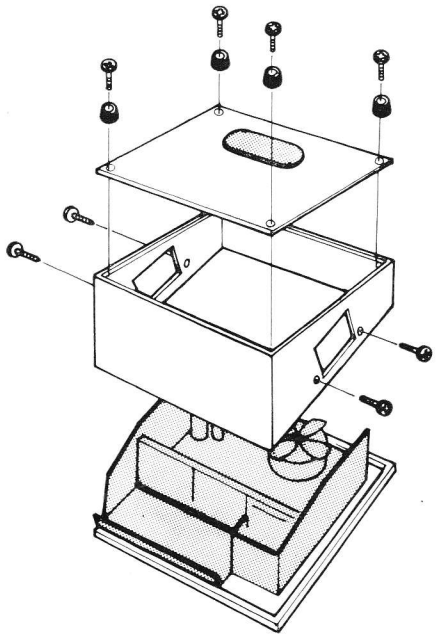


Fig. 1

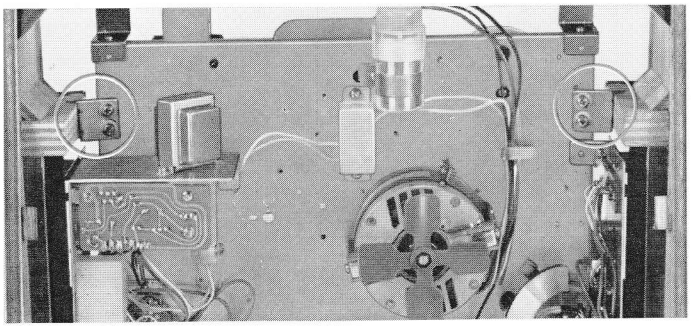


Fig 2

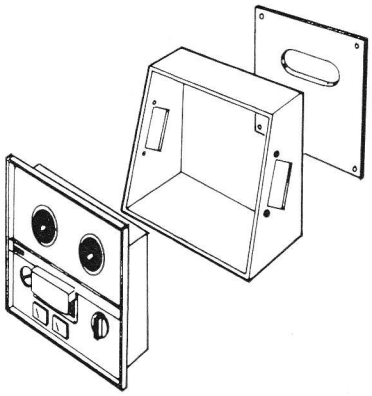


Fig. 3

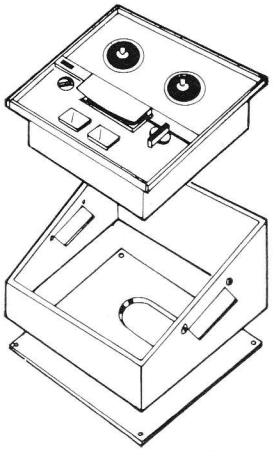


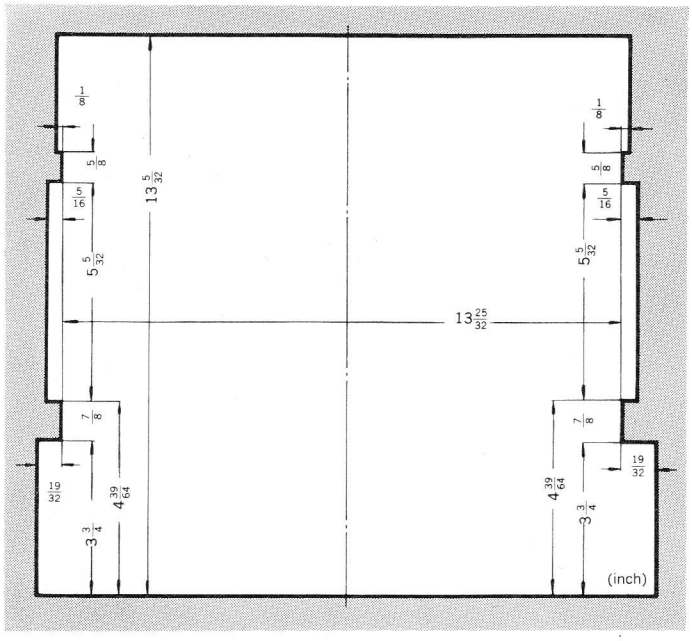
Fig. 4

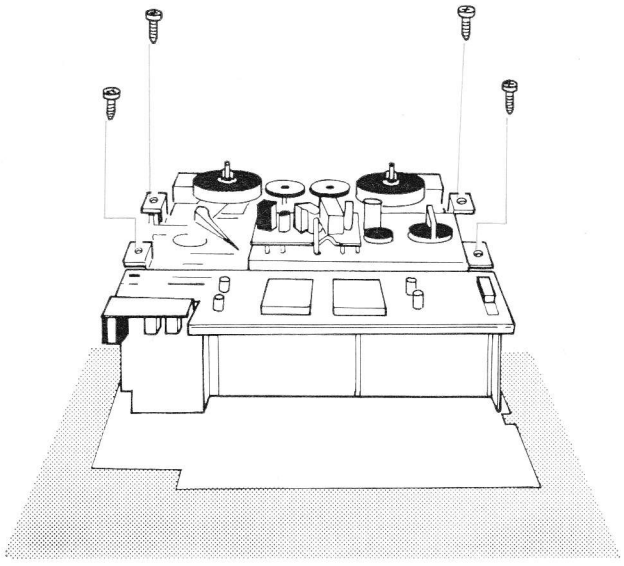
Mounting

This recorder can be installed in either vertical or horizontal position.

Consult your SONY/Superscope service station to mount the recorder in the following procedure.

1. Make a rectangular cutout at the desired location on the panel or the cabinet in accordance with the measurement.
2. Unscrew the four large screws on both sides of the case, and remove the case from the deck.
   - Before removing the case from the deck, disconnect the AC plug.
3. Take out the top panel as described in 'How to remove the top panel' on page 9.
4. Mount tne deck in new location and fasten with four wood screws as illustrated.
5. Place the top panel on top of the deck and replace the parts and controls on it.





GUIDE FOR CHECKING TROUBLES

If trouble with the TC-366 arises, make the following simple tests to determine whether or not the trouble requires a professional engineer's skill. If the trouble persists after you have made these tests, consult your nearest SONY/Superscope service station for further instructions.

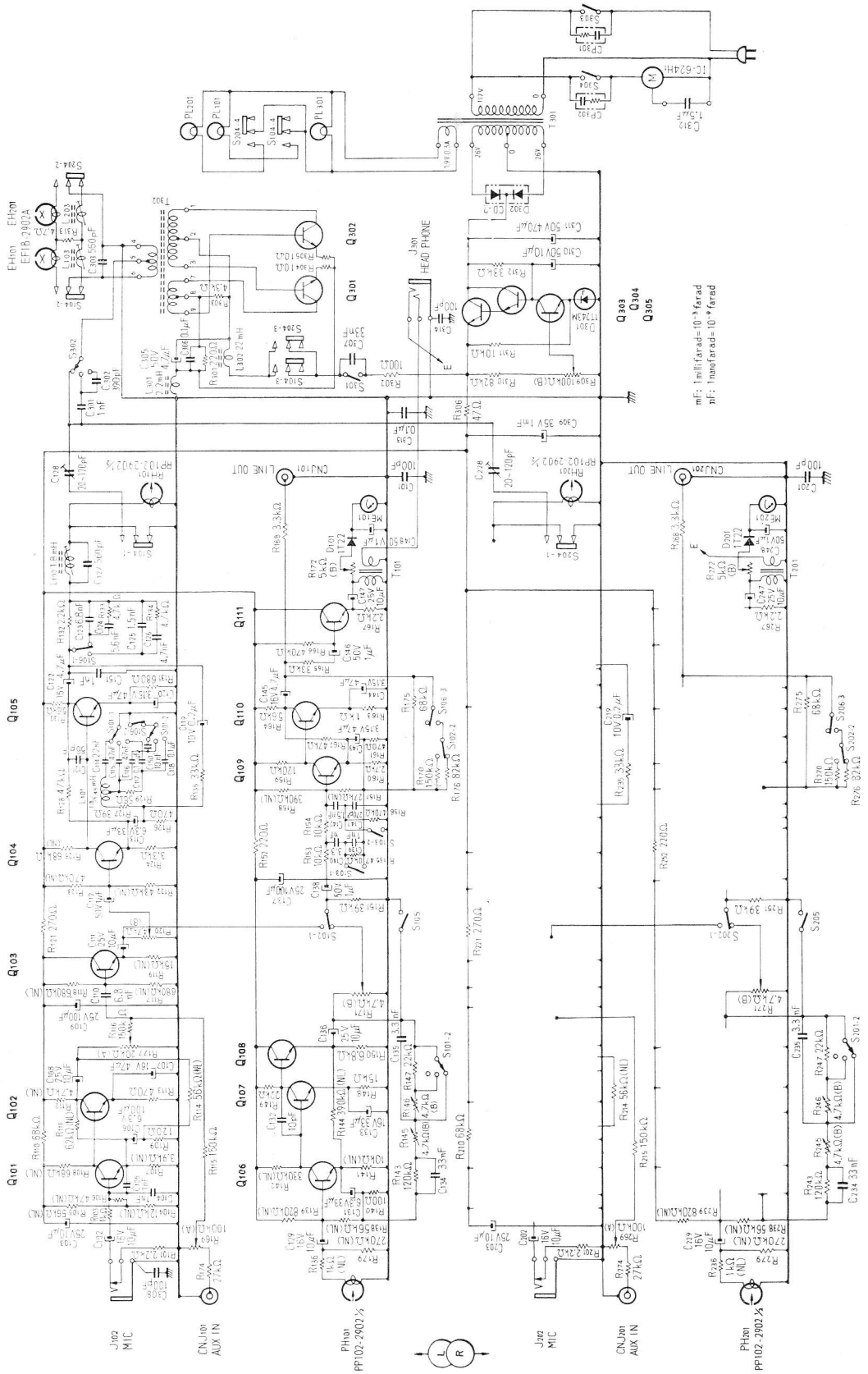
TROUBLES	PROBABLE CAUSES	WHAT TO DO ABOUT IT
Function Selector cannot be locked	· Automatic Shut-off Mechanism is activated.	· Take up the slack of tape. · The selector cannot be locked without threading tape.
No sound from recorded tape	· Monitor Switches set in SOURCE position. · Break in connection to speakers or in connecting cord from recorder to amplifier. · Amplifier fault or volume control turned off.	· See that all controls are in proper position. · Check connections. · play commercially prerecorded tape to see if the fault is in record or playback circuit.
Slippage of tape; wow or flutter	· Dirty or oily capstan and pinch roller. · Bent reel. · Different size reels for supply and take-up. · Uneven pinch roller.	· Clean capstan, pinch roller and other tape path components. · Replace the bent reel. · Check pinch roller for perfect roundness.
Recording can not be made	· Input connections are not proper, or break in the connecting cord. · Amplifier fault. · Record Levers not locked.	· Check input connections and cords. · Check Level Meters to see that signal is reaching recorder. · See that all controls are correct.
Low hum on tapes	· Input (record player or tuner) or recorder not properly grounded. · Recorder operating in electrical field.	· Check whether hum occurs on prerecorded tapes as well as those made on the recorder. · Check ground terminal connections of input or recorder. · Try reversing the AC power plug of the recorder in the wall outlet.
Loss of high frequencies	· Dirty heads.	· Clean heads and tape path. (Refer to page 8)
	· Tape threaded improperly. (Shiny side contacts the heads)	· Thread tape properly.
	· Tape twisted or damaged.	· Check the tape.
Unsatisfactory erasing	· Dirty erase head.	· Clean erase head. (Refer to page 8)

SPECIFICATIONS

Power requirement :	AC 117V, 60Hz
Power consumption :	30W
Tape speed :	7½ ips, 3¾ ips, 1⅞ ips
Recording time :	1.5 hours total at 7½ ips, stereo recording (with 1,800ft tape)
Reels :	7″ or smaller
Semiconductors :	Transistors 27, diodes 4
Recording system :	4 track stereo or monaural
Heads :	Record head 1 Playback head 1 Erase head 1
Signal-to-noise ratio :	55dB (with SLH tapes) 52dB (with standard tapes)
Distortion :	1.2%
Frequency response :	20 – 25,000Hz at 7½ ips 30 – 17,000Hz at 3¾ ips 30 – 9,000Hz at 1⅞ ips
Wow and flutter :	0.09% at 7½ ips 0.12% at 3¾ ips 0.17% at 1⅞ ips
Inputs :	Microphone inputs Sensitivity −72 dB (0.19mV) Accept low impedance microphones Auxiliary inputs Sensitivity −22 dB (0.06V) Impedance 100kΩ
Outputs :	Line outputs Output level 0 dB (0.775V) Load impedance 100kΩ Headphone jack Accepts an 8 ohm stereo headphone
Dimension :	16 7/16 (W) × 8 5/16 (H) × 14 13/16 (D)″
Weight :	22 lb 8 oz
Supplied accessories :	Empty Reel..... 1 SLH tape..... 1 Connecting cord RK-74... 2 Reel caps ..... 2 Head cleaning ribbon ..... 1 Dust protector DP-3 1
Optional accessories :	Microphone F-98, ECM-21 Stereo headphone DR-6A Telephone pick-up TP-5S Stereo microphone mixer MX-6S, MX-12

• Design and specifications subject to change without notice.

CIRCUIT DIAGRAM



Transistors

Q101, 201	2SC871	Q111, 211	2SC870
Q102, 202	2SC871	Q301	2SC634A
Q103, 203	2SC631A	Q302	2SC634A
Q104, 204	2SC870	Q303	2SC1014
Q105, 205	2SC870	Q304	2SC870
Q106, 206	2SC871	Q305	2SC870
Q107, 207	2SC871		
Q108, 208	2SC870		
Q109, 209	2SC871		
Q110, 210	2SC870		

Switches

S101, 201, 302	EQUALIZER SWITCH	7½ips
S102, 202	MONITOR SWITCH	TAPE
S103, 203	NOISE SUPPRESS SWITCH	OFF
S104, 204	RECORD SWITCH	OFF
S105, 205	MUTING SWITCH	OFF
S106, 206	TAPE SELECT SWITCH	NORMAL
S301	BIAS SWITCH	OFF
S303	POWER SWITCH	OFF
S304	AUTO SHUT-OFF SWITCH	OFF
S306	BIAS SWITCH	OFF

SONY®

WARRANTY

WARRANTY

All parts of this SONY Recorder are fully guaranteed for a period of ONE YEAR from date of purchase, providing that such purchase is made from an authorized Superscope distributor or dealer and that the Warranty Registration Card is submitted to Superscope, Inc. within ten days from date of purchase. This Warranty additionally entitles you to free labor service for a period of ninety days from date of purchase. This guarantee is valid only if repairs are effected by an authorized SONY/Superscope Service Station. If it is necessary for you to send this recorder or any defective part to Superscope, Inc., all shipments must be prepaid. If your requested repairs and/or parts exchange are within the terms of this Warranty, Superscope will prepay return shipping charges, provided it is addressed within the continental limits of the United States. This Warranty is void if the Serial Number has been altered or removed. This Warranty shall not apply if the instrument has not been connected or operated in accordance with the instructions furnished by SONY and Superscope. This Warranty shall also be voided if the instrument has been altered or repaired in any way that Superscope believes has affected the stability or reliability of the instrument. To protect your rights under this Warranty, fill out and mail the Warranty Registration Card to Superscope within 10 days of the purchase date. There is no implied warranty of merchantibility with respect to this recorder, nor are there any other warranties which extend beyond the description on the face hereof.

The SONY Corporation and/or Superscope, Inc. reserves the right to make changes in design and/or improvements upon its products without any obligation to install these changes upon any of its products theretofore manufactured.

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